



1120 Connecticut Avenue NW
Suite 400
Washington, D.C. 20036
(202) 776-1550
(202) 776-1555 Fax

EX PARTE OR LATE FILED

June 6, 1997

Ms. Regina M. Keeney
Mr. Kenneth P. Moran
Ms. Jeanine Poltronieri
Federal Communications Commission
Common Carrier Bureau
1919 M Street, N.W.
Washington, D.C. 20554

RECEIVED
JUN 6 1997
Federal Communications Commission
Office of Secretary

Re: *Ex Parte* on Universal Service Cost Models – CC Docket 96-45

Over the past year, MFS Communications Company, Inc. (now a wholly owned subsidiary of WorldCom, Inc.) has repeatedly filed comments asking the Commission to consider specifying a design standard for local loops.¹ We feel a standard should be chosen and used to guide development of the loop portion of the evolving industry cost models. Our most recent filing – a notice of an *ex parte* presentation to Dr. Robert Pepper – is attached. As best we can tell, the Commission has failed to give any consideration to these petitions.

As the Commission prepares its next Notice of Proposed Rule Making to address cost models, we once again ask you to consider either specifying one of two loop standards or asking the model proponents to design their models to develop costs for both standards so you can judge the cost impact of selecting either. Citing other parties, you raise the issue of a loop design standard in paragraph 250 of your recent Report and Order² in the above

¹ MFS's recommendation was described in: its universal service (CC Docket 96-45) Comments at pp. 3-12 (December 19, 1996); its Reply Comments at pp. 3-6 (January 12, 1997); its initial Reply Comments at pp. 12-18 (May 7, 1996); its comments filed in response to two subsequent requests for information filed with the Joint Board and the Commission on August 2, 1996 (pp. 11-28) and August 9, 1996 (pp. 3-5); a written *ex parte* filed with the Commission and members of the Joint Board on October 17, 1996; its Comments at the FCC's hearing on cost models and in the subsequent written presentation filed on February 18, 1997; an *ex parte* with Universal Service Branch staff (February 19, 1997); and, the *ex parte* presentation attached hereto which was filed on March 28, 1997.

² Report and Order, FCC Docket 96-45, Adopted May 7, 1997, Released May 8, 1997

021

referenced docket, but you did not adopt a standard. Rather, you say "The loop design ... should not impede the provision of advanced services. For example, loading coils should not be used." While this is a significant improvement over previous requirements (and will necessitate at least some modifications in the Hatfield model), it still leaves far too much uncertainty in the loop modeling process for you to have any assurance that the new models will produce results that can be compared.

WorldCom feels there are just two loop standards to consider. The first, Revised Resistance Design (RRD), permits copper loops up to 18,000 feet long and will support data transmission speeds up to 1.54 mbps using xDSL technologies. The other, Carrier Serving Area (CSA), permits copper loops up to 12,000 feet long and will support data transmission speeds up to 6 mbps. Neither utilizes loading coils. If either design uses only 26 gauge copper, the maximum copper design lengths decrease to about 15,000 feet and 9,000 feet, respectively. Both standards are more fully described in industry publications including the Bellcore publication "BOC Notes on the LEC Networks – 1990" in Chapters 7 and 12.

WorldCom believes that if each of these loop standards were modeled the models would produce significantly different costs. Without model results, you will not have data sufficient to make an informed choice of a loop cost to use as the universal service benchmark. Further, you will not be able to demonstrate that you have satisfied Congress' explicit mandate to promote cost effective access to advanced technologies. Obviously, we understand the Commission wants to do both.

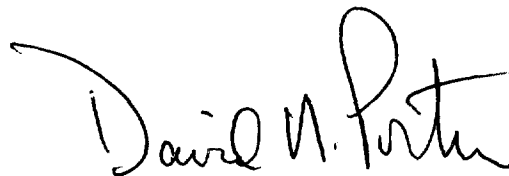
The FCC need not adopt either loop standard until you've seen the cost results. WorldCom could support either standard, but we'd like to know which is adopted so we will know the capability of the loops we are paying for. Loops designed to either standard should require no further "conditioning" to operate at the design level. Nonetheless, we urge you to adopt the RRD standard. This is fully consonant with contemporary Congressional direction that rural carriers design new loops to support 1 mbps transmission and will permit the extension of new high-speed digital services to all Americans.³ Such services have numerous applications including Internet access, video-teleconferencing, tele-medicine, distance learning, and so forth. The CSA standard also will enable LECs to offer video-dial tone services. WorldCom believes these services have potentially significant commercial value, but does not feel the universal service fund should pay for LEC entry into this new market that will be directly competitive with CATV and other media that will not receive universal service funding.

³ See Rural Electrification Loan Restructuring Act (RELRA), 107 Stat. 1356, codified in 7 USC § 935 (1994). Also see the previous MFS and RUS filings in this proceeding

If you require the models to incorporate either or both standards, we also ask you to require a choice between uni-gauge (all 26 gauge) and multi-gauge designs. This would produce four basic loop cost outputs for your consideration. Of course, we assume you also will require an ability to study the impact of geographic deaveraging on loop costs. In order to most efficiently use fiber in the loop, WorldCom believes that loops should be designed from the most distant point toward the central office rather than from the central office out. Both Hatfield and BCPM design from the office out. Further, both models assume there is some significance to the break between feeder and distribution plant. Both assert the length of feeder cable should determine placement of fiber. Neither is correct. Placement of fiber should be driven by total loop length not by the distance to an arbitrary point midway in the loop. Designing the loop from the distant end reduces this problem. Designing from the distant end also eliminates the need to explicitly consider the impact of bridged taps on loop design.

WorldCom respectfully requests you require universal service cost modeling proponents to design their models in such a way that the user can request loop costs based on either the RRD or CSA standard with either uni-gauge or multi-gauge copper cables. If you choose not to require either or both standards at least require the proponents to declare which standard they incorporated.

Thank you. We remain available to discuss this issue at your convenience.

A handwritten signature in black ink, reading "David N. Porter". The signature is fluid and cursive, with a large initial "D" and "P".

David N. Porter
Vice President - Government Affairs

Attachment

cc: William F. Caton
Acting Secretary



March 28, 1997

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

RECEIVED
MAR 28 1997
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: *Ex Parte* Presentation, CC Dockets 96-45 and 96-98, DA 97-56
and CPD Docket 97-2

Dear Mr. Caton:

As required by the Commission's rules, this letter provides notice that Mark Sievers (Swidler & Berlin, Chartered) and I met yesterday with Robert Pepper and Kevin Werbach of the FCC Office of Plans and Policy to discuss WorldCom's views on the urgent need for the Commission to specify a technical design standard for local loops. Although this position has been expressed in formal pleadings and *ex parte* presentations made by WorldCom (and previously by MFS Communications, now a wholly owned subsidiary of WorldCom), WorldCom will follow the recently adopted, but not yet effective, amended *ex parte* rules and will here provide a more detailed summary of the discussion. No written materials were provided during the meeting.

Selection of a local loop standard is essential to complement the FCC's current efforts to define and refinance universal service in compliance with the explicit requirements of the Telecommunications Act of 1996 ("TA96"). Such specificity also is needed in order for FCC staff to evaluate any proxy cost model (or alternative costing method) which ultimately may be used to determine the level of universal service funding. And, a standard is needed to assure that unbundled local loops are of a type and quality that would support the soon to be decided universal service criteria. WorldCom proposes that the Commission impose, as a condition for a wireline carrier to be eligible to receive universal service funds, a requirement that unbundled local loops provided by such carriers satisfy the loop standard currently required of rural carriers as a condition to receive funding from the Rural Utility Service ("RUS").

In §254 (b), TA96 explicitly establishes six principles for the "preservation and advancement" of universal service. Four of the six seem to require some expression of a standard before they even can be defined:

(1) Quality services should be available at just, reasonable, and affordable rates.

(2) Access to advanced telecommunications and information services should be provided in all regions of the nation.

(3) Consumers in all regions of the Nation ... should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas ...

(6) Elementary and secondary schools and classrooms, healthcare providers [for rural areas], and libraries should have access to advanced telecommunications [and information] services ...

If the Commission adopts a universal service order without including an explicit standard for local loops, WorldCom firmly believes the Commission cannot satisfy these objectives – it will not have assured the advancement of universal service; it will not have defined “quality” and therefore cannot have determined that rates are just; and, it will not have assured comparable access to advanced services in all regions of the Nation.

To be more explicit, about 20% of local loops in service today (typically, those in rural and suburban areas longer than 18,000 feet) are not capable of supporting transmission speeds for 28.8 kbps modems or Group 3 facsimile machines. Capability to use either technology has to be considered the minimum necessary to satisfy Principle 3 and certainly is not nearly sufficient to satisfy the other principles listed above. Perhaps as many as 50% of loops cannot support ISDN, and dramatically fewer still can support ADSL at 6 mbps. Yet, WorldCom believes that a loop properly designed to support 28.8 kbps modems or Group 3 facsimile machines also will support ISDN (at 128 kbps), HDSL (at 768 kbps per pair) and ADSL (asynchronous at 1.54 mbps per pair) at little or no additional cost. At this time, WorldCom does not believe the standard should mandate loops capable of supporting ADSL at 6 mbps.

In our previous filings, we have identified existing industry standards that could be adopted to define any of these performance levels. Generally, the standards would allow unloaded loops up to 18,000 feet long. These same design standards would satisfy the RUS standard that already has been endorsed in telecommunications modernization plans adopted by utility commissions or independent telephone company industry groups in most states.

If the RUS standard already is widely adopted, why should the Commission act? First, the RUS standard unambiguously reflects express Congressional intent with respect to deployment of advanced services. Second, TA96 requires some definition of “advanced.” Third, the state agreements address only growth and modernization additions of the smallest telephone companies.

Finally, without a standard there is no consistent way to define costs and, therefore, no way to define just, reasonable, and affordable rates.

The major cost models now being considered to define the appropriate level of universal service support do not specify a loop design standard. Nonetheless, as best we can tell, the Hatfield model is both under-designed on long loops and over-designed on short loops while the Benchmark model appears consistently over-designed to support ADSL at 6 mbps. Thus, the models produce results that are not comparable, but neither is wrong because there is no performance standard defined by the Commission.

To state the obvious, Benchmark may overstate costs and Hatfield likely will understate costs. The imperative of universal service, not to mention the magnitude of funding required to support it, and the advent of local competition are too important to leave so critical a factor unstated. WorldCom respectfully requests that the Commission embrace the standard already incorporated in one federal law – define universal service to require local loops designed to transmit data at 1 mbps.

What impact will adoption of the RUS standard have on the funding required to support universal service? Probably, not much. But, it may actually lower the required high-cost funding:

- If the Commission decides to use either, or a combination, of the two major cost models to define universal service costs, the overall cost level likely will drop because, with a stated standard, Benchmark costs almost certainly will drop and Hatfield costs likely would change only slightly;
- If the Commission decides instead to abandon, or delay adoption of, cost models and instead decides to use some variation of embedded costs plus the costs necessary to upgrade to whatever standard you ultimately choose, the average cost is likely to increase more than the maximum.

Thus, in either event, the funding required for high-cost support (some portion of the difference between the average and maximum costs) will fall.

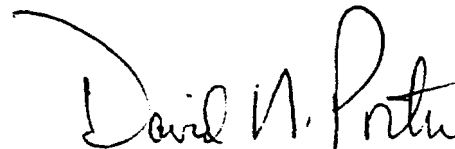
The result using embedded costs may not be obvious, but independent telephone companies generally have been much more progressive and aggressive in modernizing their plant, so their costs already reflect higher standards. The larger companies generally seem to have lagged behind. There are two examples that confirm this phenomenon – first, several years ago in its Infrastructure Study, NTIA found that independent telephone companies generally had deployed more digital transmission and digital switching than had the major telephone companies; and, more recently it has been demonstrated by the actions of independent companies like Blackfoot Telephone Cooperative which moved aggressively to modernize the telephone exchanges it recently acquired from US West.

What about funding for low-income users? While the sixth principle requires funding for certain institutions to receive advanced services, the second principle does not require universal service support for most end users to receive subsidized access to advanced services. Instead, it requires that access be available. An advanced service may be added to the list of subsidized universal services when the service has "been subscribed to by a substantial majority of residential customers" (§254 (c)). Thus, failure to adopt a loop standard may actually increase universal service costs while it decreases the capabilities available to all Americans. This is hardly a desirable outcome for the Commission to endorse.

Whatever loop standard the Commission adopts here to define universal service capabilities also must be applied to unbundled network elements. Otherwise, new entrants will continue to face circumstances where incumbents somehow find loops already appropriately conditioned for advanced services when they provide service, but only have loops that need extra conditioning when new entrants want to provide the same service. This conditioning cost may exceed \$500 per loop in some jurisdictions. These costs may be overstated because incumbents generally upgrade whole areas rather than individual loops and may be charging new entrants the total cost. Further, new entrants may be forced to pay twice for whatever upgrade, if any, is required – once in loop specific "conditioning" charges and again in universal service support. Such treatment simply is not equitable and could be avoided if the Commission were to require wireline carriers to adopt a specified quality standard for all loops (including the loop unbundled network element) in order to be eligible to receive any universal service fund disbursements.

WorldCom urges the Commission to adopt in its universal service and interconnection proceedings a performance standard for local loops (including the unbundled local loop network element) that mirrors the standard already adopted by RUS.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David N. Porter". The signature is fluid and cursive, with a large initial "D" and "P".

David N. Porter
Vice President - Government Affairs

cc: Robert Pepper
Kevin Werbach